



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
(Case No. 98010CON)

In the Application of:

Kaufman et al.

Serial No. 10/145,375

Filed: May 14, 2002

Title: CHEMICAL MECHANICAL POLISHING
SLURRY USEFUL FOR COPPER
SUBSTRATES

) Examiner: T. V. Eley

) Group Art Unit: 3724

Commissioner for Patents
Washington, D.C. 20231

Sir:

**DECLARATION OF DR. VLASTA BRUSIC KAUFMAN
(PURSUANT TO 37 C.F.R. SECTION 1.131)**

I, Vlasta Brusic Kaufman, residing at 721 Easton Avenue, Geneva, Illinois 60134, do hereby declare:

1. I am one of the named inventors of this United States Letters Patent Application Serial No. 10/145,375, filed May 14, 2002, and assigned to Cabot Microelectronics Corporation (CMC). This application is a continuation of application serial number 09/040,603, filed on March 18, 1998.

2. I have been employed by CMC or its predecessor, Cabot Corporation, since January 1, 1996, where I have been involved in various capacities in chemical mechanical polishing composition (CMP) product design and development. I am named as an inventor on thirteen (13) issued U.S. Patents that are directed to various CMP compositions and methods for their use.

Prior to joining CMC, I was employed from June 1, 1970 to October 31, 1995 by IBM.

3. I hold a Ph.D. in Physical Chemistry from the University of Pennsylvania. My Doctoral thesis was on the topic of iron passivation. I hold a B.S. in Chemical Engineering from the University of Zagreb, Croatia.

4. All of the acts and events described in this Declaration occurred in the United States.

5. The inventions described in the claims of the patent application Serial No. 10/145,375 were conceived and reduced to practice by the named inventors, prior to July 17, 1997 (hereinafter the reference date).

6. The inventions disclosed in the above-captioned patent application were conceived cooperatively by Vlasta Brusic Kaufman, Rodney C. Kistler and Shumin Wang prior to the reference date.

7. The subject matter of the inventions described and claimed in a Patent Application Serial No. 10/145,375 was described in a laboratory notebook excerpt that was prepared and dated prior to the reference date and attached hereto as Exhibit A. All dates have been redacted from Exhibit A.

8. Exhibit A documents a conception and reduction to practice of our inventions. Page 7376-20 of Exhibits A includes a copper corrosion plot for a polishing composition including 2% oxalic acid, 9% hydrogen peroxide, and 3% alumina. Mention of the alumina abrasive was omitted because the experiments summarized in Exhibit A were directed to understanding the chemistry of the polishing composition, i.e., the properties of the chemical ingredients, and not the abrasive ingredient of the polishing compositions. The polishing

compositions did not include a film-forming agent. (See Exhibit A). Page 7376-18 of Exhibit A reports:

3) Important: 9% H₂O₂, 2% oxalic acid pH 1.92 shows very interesting kinetics: fast dissolution w/abrasion and excellent passivation after abrasion: Figure on p 20.

9. I hereby declare further that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.

Date: March 24, 2003

Signed:

Vlasta Brusic Kaufman
Dr. Vlasta Brusic Kaufman